

REMARKS

Claims 1-108 were previously pending in the subject application. The Examiner has rejected claims 92-97 and 100-108, and has withdrawn claims 1-91 from further consideration. The Examiner has objected to claims 98-99 as being dependent upon a rejected base claim. Applicant has amended claim 108, and has added claim 109. Applicant has also cancelled claims 1-91, without prejudice or disclaimer of the subject matter contained therein, and reserves the right to file one or more continuing applications on this subject matter. Accordingly, claims 92-109 are now pending in the subject application. Support for the amendments can be found at, for example, FIG. 2 and paragraph no. 44. No new matter has been added.

Applicant will sequentially address various issues raised by the Examiner.

Election/Restrictions

The Examiner argues that claims of Group I (claims 1-91) and claims of Group II (claims 92-108) are drawn to distinct inventions, and has required election of one of Group I and Group II for further prosecution. Applicant had made a provisional election, with traverse, to prosecute the claims of Group II (claims 92-108).

Applicant hereby affirms the election to prosecute the claims of Group II (claims 92-108), without traverse. In an effort to expedite the prosecution of the subject application, Applicant has cancelled claims of Group I (claims 1-91), without prejudice or disclaimer of the subject matter contained therein. Applicant reserves the right to pursue any cancelled subject matter in one or more continuing patent applications.

Claim Rejection – 35 U.S.C. §112, second paragraph

The Examiner has rejected claim 108 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses this rejection of claim 108. Nonetheless, in an effort to expedite the prosecution of the subject application, Applicant has amended claim 108 for purposes of clarification.

In particular, claim 108 has been amended to recite that “the first plurality of organic molecules are deposited to form a first domain that is positioned on a first one of the pair of electrical contacts and a second domain that is positioned on a second one of the pair of electrical contacts, and the first nanowire is deposited to bridge the first domain and the second domain.”

At least in view of the foregoing reasons, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. §112, second paragraph.

Claim Rejections – 35 U.S.C. §103

The Examiner has rejected claims 92-97 and 100-108 under 35 U.S.C. §103(a) as being unpatentable over SAXE (U.S. Patent No. 6,522,446). Applicant respectfully traverses this rejection of claims 92-97 and 100-108.

Claim 92 includes a number of features that are not taught or suggested by SAXE. For example, Applicant’s review of the cited reference has failed to identify any teaching directed to a nanowire-based device as recited in claim 92, which nanowire-based device comprises: (1) “an organic layer *positioned on* the electrically conductive layer, the organic layer being formed of a plurality of organic molecules each including a plurality of *conjugated π -bonds*,” and (2) “a nanowire *positioned on* the organic layer.”

SAXE discloses a light valve formed of a liquid suspension placed between opposed cell walls, which have electrodes associated therewith. *See, e.g.*, col. 4, lines 40-47. The liquid suspension is a liquid suspending medium in which “a plurality of small particles is *dispersed*,” and the liquid suspending medium contains one or more “*electrically resistive* liquids in which there is preferably dissolved at least one type of polymeric stabilizer which acts to reduce the tendency of the particles to agglomerate and to keep them *dispersed and in suspension*.” Col. 2, lines 21-28 (emphasis added).

Unlike SAXE, claim 92 recites an organic layer “*positioned on*” an electrically conductive layer, and “being formed of a plurality of organic molecules each including a plurality of *conjugated π -bonds*.” As discussed in the subject application at, for example, paragraph no. 35, conjugated π -bonds are desirable so as to provide electrical conductivity and to enhance electrical coupling with a nanowire. Nowhere does the cited

reference teach or suggest the organic layer as recited in claim 92. Moreover, nowhere does the cited reference teach or suggest a nanowire “*positioned on*” the organic layer, as recited in claim 92. Indeed, SAXE teaches away from the claimed subject matter, since SAXE discloses a liquid suspension that contains one or more “*electrically resistive liquids*” in which there is preferably dissolved at least one type of polymeric stabilizer to keep particles “*dispersed and in suspension*.”

For at least these reasons, Applicant respectfully submits that claim 92 defines subject matter that is not taught or suggested by SAXE. Therefore, Applicant submits that claim 92 and its dependent claims 93-101 are in a condition for allowance. In addition, claims 93-101 include a number of additional features that are not taught or suggested by the cited reference.

For example, Applicant’s review of the cited reference has failed to identify any teaching directed to a nanowire-based device as recited in claim 100, wherein “the organic layer is *elongated*, and the nanowire is *positioned on* the organic layer to be *substantially aligned* with the organic layer.”

As another example, Applicant’s review of the cited reference has failed to identify any teaching directed to a nanowire-based device as recited in claim 101, wherein “the organic layer includes a *pair of domains* that are spaced apart from one another, and the nanowire is *positioned on* the organic layer to *couple* the pair of domains.”

Claim 102 also includes a number of features that are not taught or suggested by SAXE. For example, Applicant’s review of the cited reference has failed to identify any teaching directed to a nanowire-based device as recited in claim 102, which nanowire-based device comprises: (1) “a first plurality of organic molecules *deposited on* the pair of electrical contacts, the first plurality of organic molecules being *electrically conductive*,” and (2) “a first nanowire *deposited on* the first plurality of organic molecules to *electrically couple* the pair of electrical contacts.”

The teachings of SAXE have been discussed above in connection with claim 92. Unlike SAXE, claim 102 recites a first plurality of organic molecules “*deposited on*” a pair of electrical contacts, and “being *electrically conductive*.” Nowhere does the cited

reference teach or suggest the first plurality of organic molecules as recited in claim 102. Moreover, nowhere does the cited reference teach or suggest a first nanowire “*deposited on*” the first plurality of organic molecules to “*electrically couple*” the pair of electrical contacts, as recited in claim 102. Indeed, SAXE teaches away from the claimed subject matter, since SAXE discloses a liquid suspension that contains one or more “*electrically resistive liquids*” in which there is preferably dissolved at least one type of polymeric stabilizer to keep particles “*dispersed and in suspension.*”

For at least these reasons, Applicant respectfully submits that claim 102 defines subject matter that is not taught or suggested by SAXE. Therefore, Applicant submits that claim 102 and its dependent claims 103-109 are in a condition for allowance. In addition, claims 103-109 include a number of additional features that are not taught or suggested by the cited reference.

For example, Applicant’s review of the cited reference has failed to identify any teaching directed to a nanowire-based device as recited in claim 108, wherein “the first plurality of organic molecules are deposited to form a *first domain* that is *positioned on* a first one of the pair of electrical contacts and a *second domain* that is *positioned on* a second one of the pair of electrical contacts, and the first nanowire is deposited to *bridge* the first domain and the second domain.”

At least in view of the foregoing reasons, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. §103(a).

Summary

For the reasons set forth above, Applicant respectfully submits that the subject application is in a condition for allowance. An early notice of allowance is, therefore, earnestly requested.

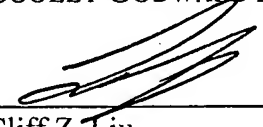
If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (650) 843-5852.

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